



SAMHSA-HRSA Center for Integrated Health Solutions

Addressing Alcohol Use Amongst those with Severe Mental Illness

PBHCI Quarterly Webinar

March 20, 2013

Advances in Treatment Matching

ASAM Patient Placement Criteria Software – Sources of Support:

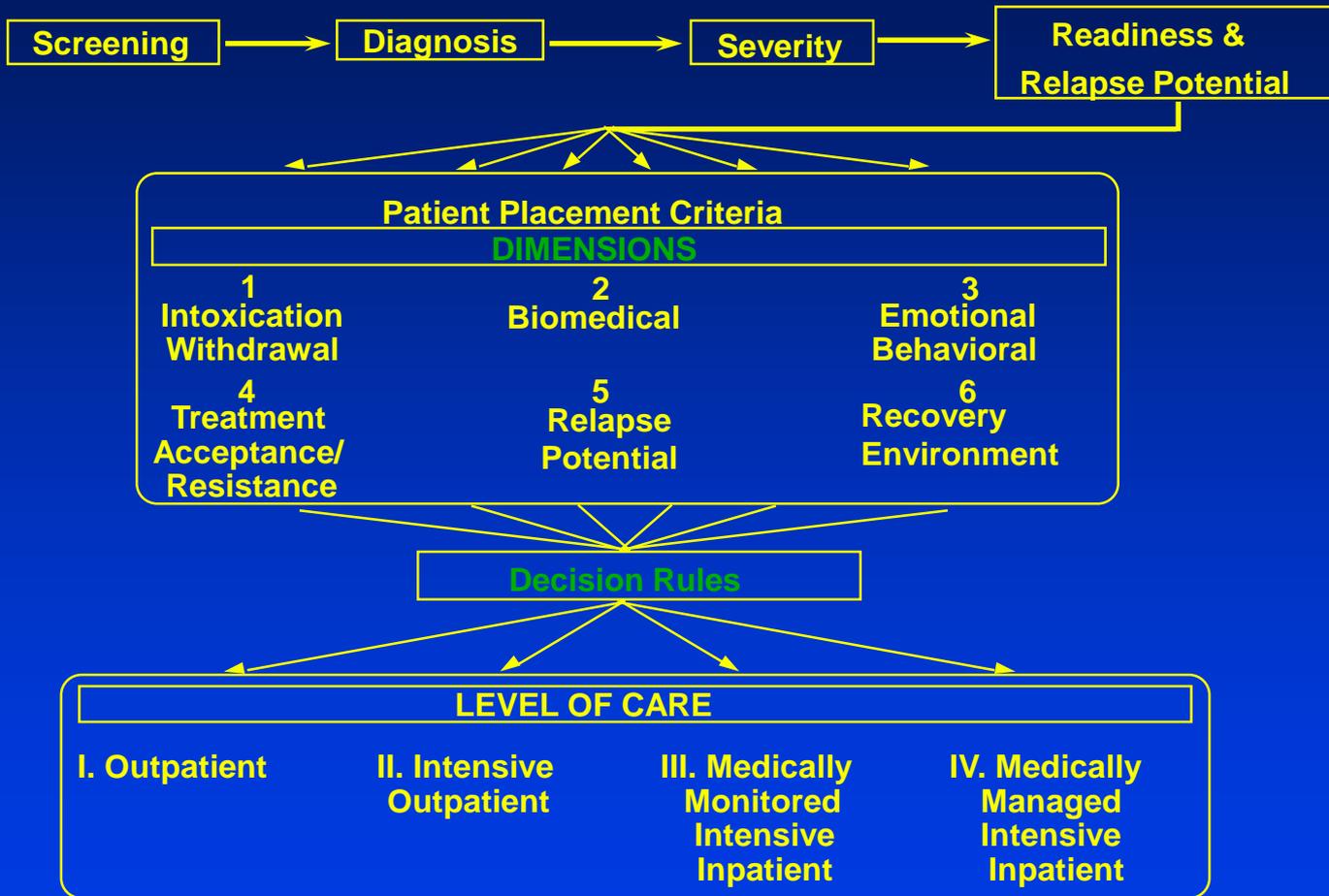
- NIDA: Validation - R01-DA08781 & K24-DA00427
- Belgian National Fund for Scientific Research: Training - S. Pirard
- Belgian American Educational Foundation: Training - S. Pirard
- Central Norway Health Trust /Rusbehandling Midt-Norge: Validation
- NIAAA: PPC-2R Assessment Software - SBIR grant R44-AA12004
- CSAT: Access to Recovery Initiative - grant 270-02-7120

Conflict of Interest Disclosures:

David R. Gastfriend MD

– VP Scientific Communications, Alkermes; CEO, RecoverySearch

ASAM Patient Placement Criteria



ASAM PLACEMENT CRITERIA

LEVELS OF OF CARE CRITERIA	I. OUTPT	II. INTENSIVE OUTPT	III. MED MON INPT	IV. MED MGD INPT
Withdrawal	no risk	minimal	some risk	severe risk
Medical Complications	no risk	manageable	medical monitoring required	24-hr acute med. care required
Psych/Behav Complications	no risk	mild severity	moderate	24-hr psych. & addiction Tx required
Readiness For Change	cooperative	cooperative but requires structure	high resist., needs 24-hr motivating	
Relapse Potential	maintains abstinence	more symptoms, needs close monitoring	unable to control use in outpt care	
Recovery Environment	supportive	less support, w/ structure can cope	danger to recovery, logistical incapacity for outpt	

Dimensional Admission Criteria:

Recovery Supports in the ASAM PPC-2R

All 6 PPC Dimensions address recovery supports

Multiple categories of recovery support, including...

<ul style="list-style-type: none">• Significant other, family, friends	<ul style="list-style-type: none">• Transportation access
<ul style="list-style-type: none">• Mutual help community	<ul style="list-style-type: none">• Coercive factors
<ul style="list-style-type: none">• Supportive Living	<ul style="list-style-type: none">• Intensive outreach• Case management services• Assertive Community Treatment
<ul style="list-style-type: none">• Workplace & employer	<ul style="list-style-type: none">• Monitoring

Items: Dimension-4 Readiness

- “How do you plan to prevent relapses...?”

(After answer, if not mentioned, ask:)

- “How about counseling, meetings, a sponsor, or new activities or sober friends...?”
- “How active have you been with any of these recently...?”

0=Has track record of frequent & multiple
successful recovery approaches

1=Ready for regular, multiple efforts

2=Some ideas & occasional effort

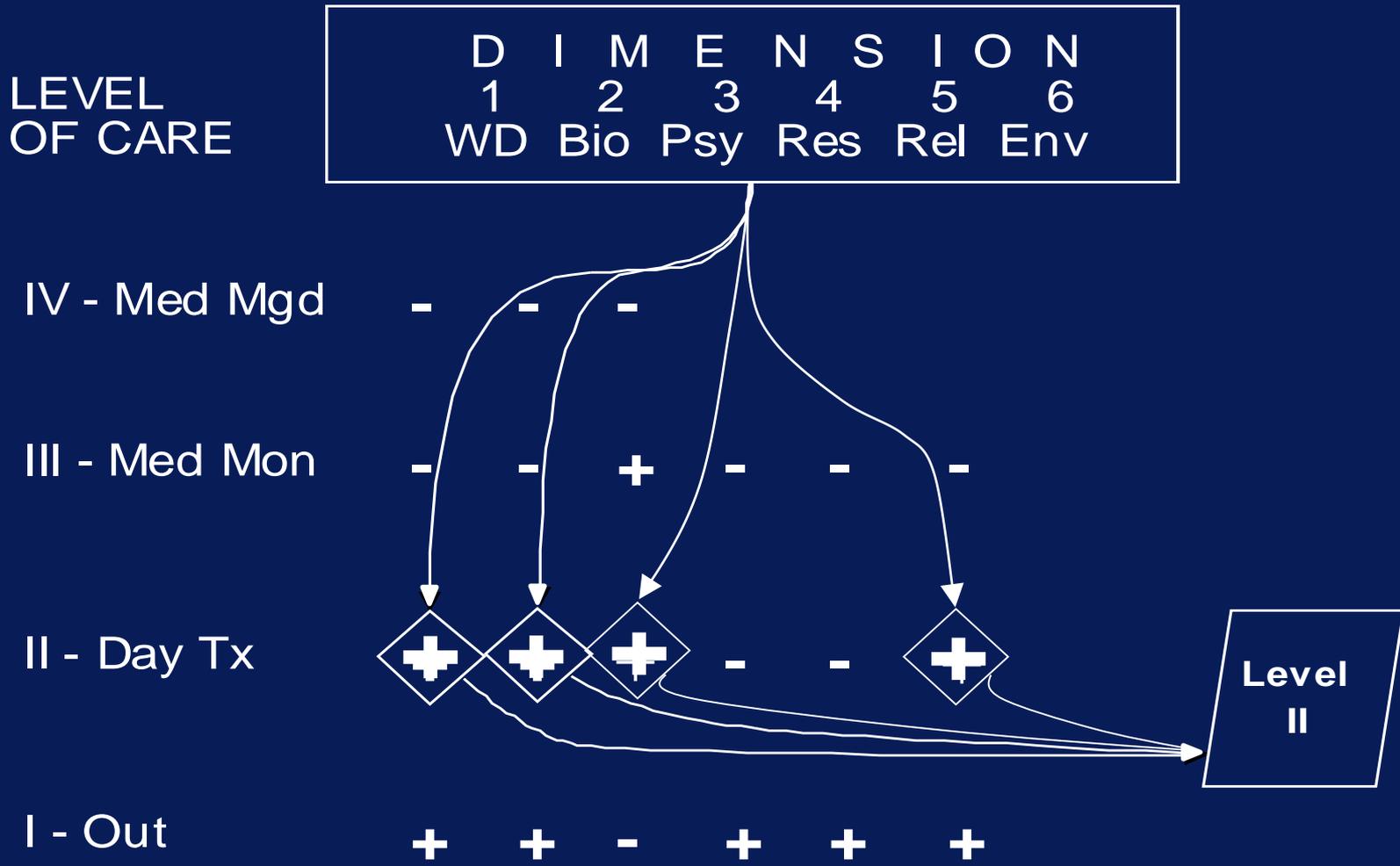
3=Passive or vague

4=Highly ambivalent or rejects need

ASAM PPC Decision Rules – Mr. D.

- **Mr. D. is a 41 y/o MWM unemployed carpenter, referred by his wife, a nurse, who, after a recent relapse, will soon throw him out if he continues his daily 6-pack habit.**
- **His history includes no prior withdrawal Sxs, but + major depression with suicidal ideation, intermittent Rxed opiates for low back injury, & alcoholism in his father.**
- **He would now accept treatment, including abstinence from any opiates, restarting his antidepressant, & attending some AA meetings.**

ASAM PPC Decision Rules – Mr. D.



ASAM-PPC 1 Validity at 3 Months

(Magura et al., Am J Add'n 2003)

Supported by NIAAA grant R01-AA10863

Predictive Validity of the ASAM Patient Placement Criteria for Naturalistically Matched vs. Mismatched Alcoholism Patients

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Nicole Kosanke, PhD
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Jeffrey Foote, PhD
Alexander DeLuca, MD
Priti Bali, BA

Stephen Magura, Graham Staines, Nicole Kosanke, Andrew Rosenblum, and Priti Bali are affiliated with the Institute for Treatment and Services Research, National Development and Research Institutes (NDRI), New York, NY.

Jeffrey Foote was affiliated with the Smithers Treatment Center, St. Lukes-Roosevelt Medical Center, New York, NY at time of the study. Dr. Foote is currently affiliated with the National Center on Addiction and Substance Abuse, Columbia University, New York, NY.

Alexander DeLuca was affiliated with the Smithers Treatment Center, St. Lukes-Roosevelt Medical Center, New York, NY at time of the study. Dr. DeLuca is currently in private practice, New York, NY.

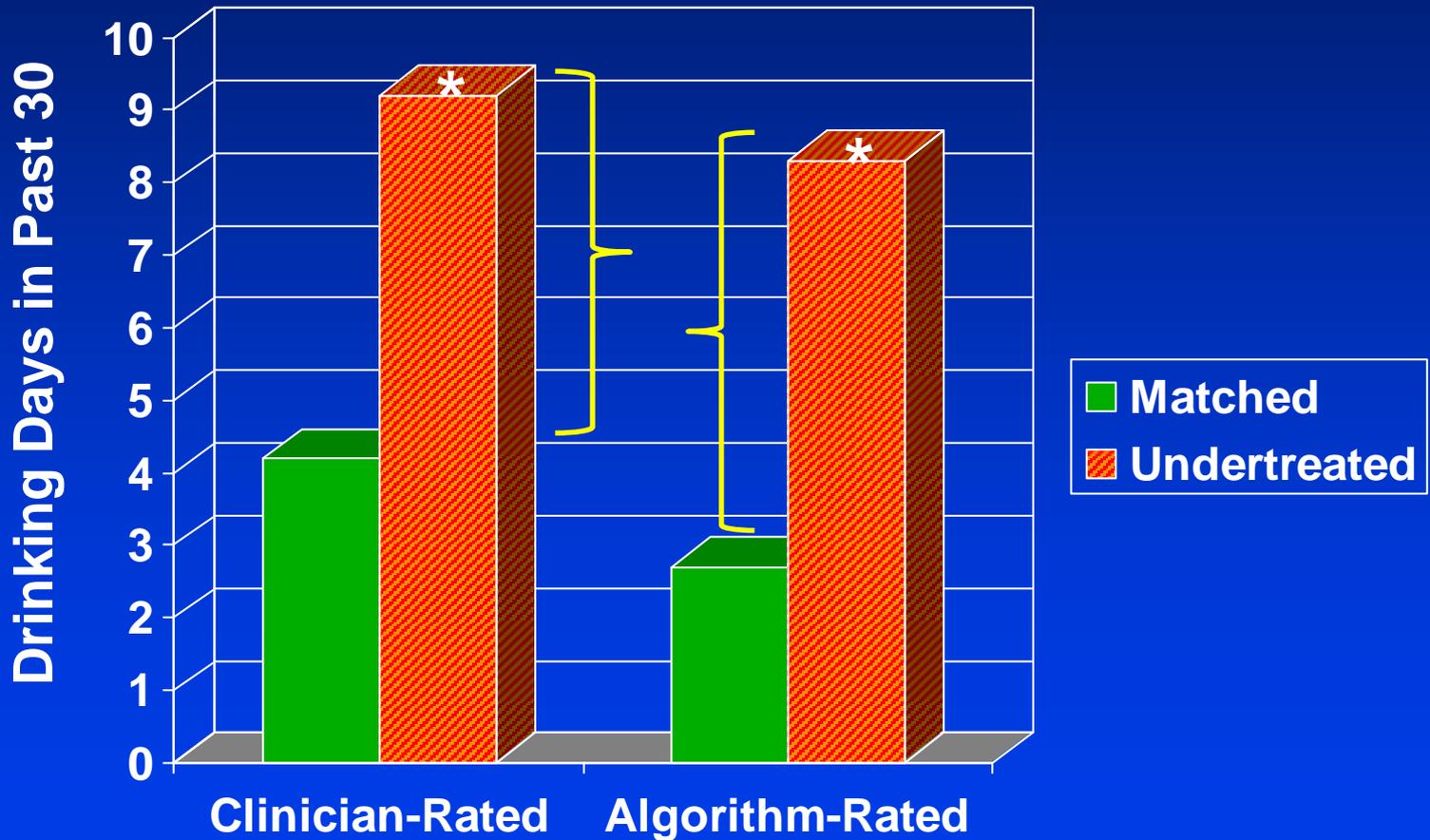
Address correspondence to: Dr. Stephen Magura, NDRI, 71 West 23rd Street, New York, NY 10010 (E-mail: magura@ndri.org).

David R. Gastfriend, MD and his staff at Massachusetts General Hospital provided valuable advice. Ann Geller, MD, significantly facilitated the initiation of the study. The assistance of the staff and patients at Smithers Treatment Center is greatly appreciated.

ASAM-PPC 1 Validity at 3 Months

(Magura et al., Am J Add'n 2003)

Alcohol use by naturalistic Levels of Care & mismatching (N=219)



PPC-1 Impact on Bed-Day Utilization over 1-Year (Sharon et al., JAD 2003)

Supported by NIDA grants # R01-DA08781 & K24-DA00427

Predictive Validity of the ASAM Patient Placement Criteria for Hospital Utilization

Estee Sharon, PsyD
Chris Krebs, MA
Winston Turner, PhD
Nitigna Desai, MD
Gregory Binus, MD
Walter Penk, PhD
David R. Gastfriend, MD

SUMMARY. We tested the validity of the ASAM Patient Placement Criteria (PPC) using the first complete and reliable computerized imple-

Estee Sharon is affiliated with the Addiction Research Program, Department of Psychiatry, Massachusetts General Hospital and Harvard Medical School, Boston, MA, and the Edith Nourse Rogers Memorial Veterans Hospital, Bedford, MA.

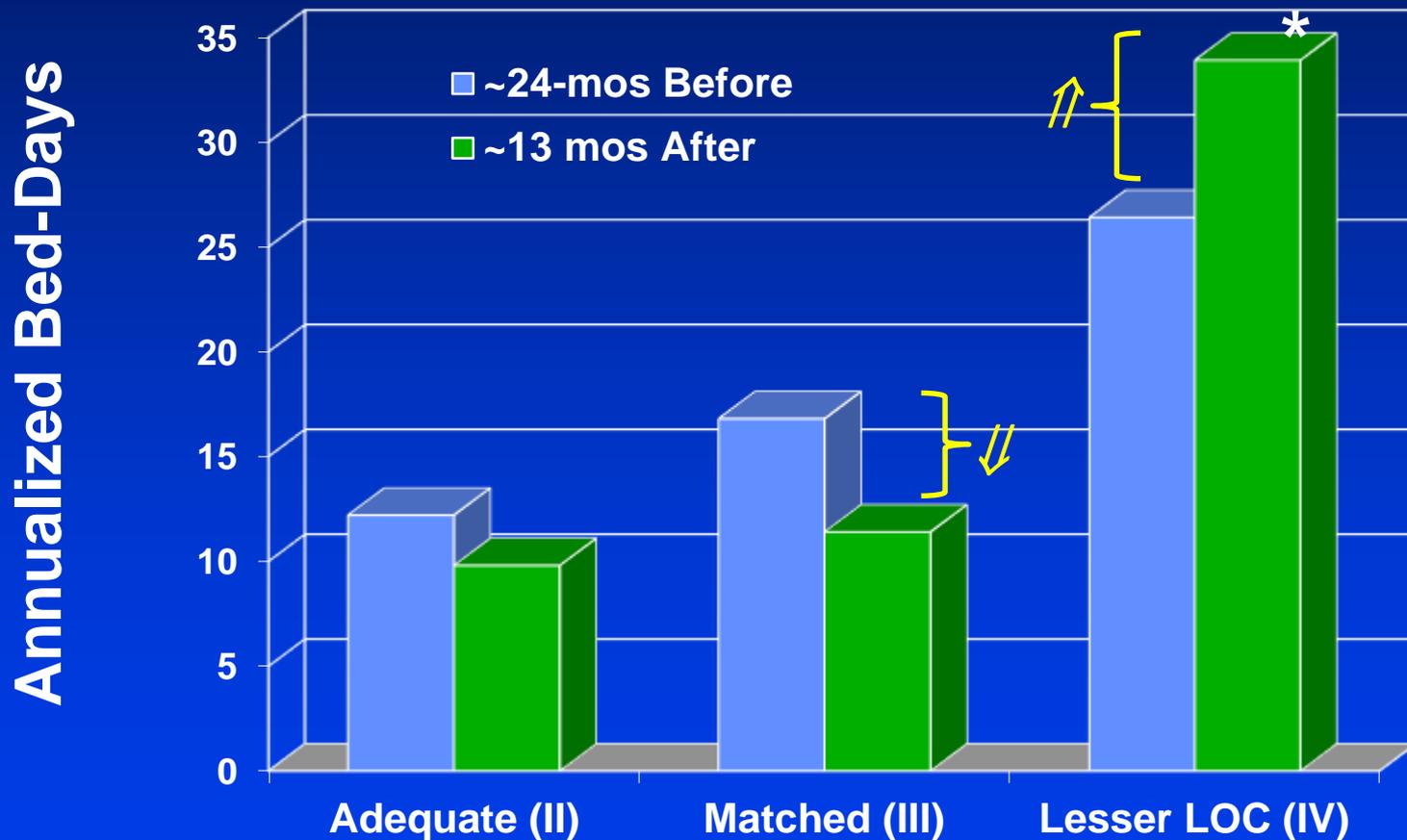
Chris Krebs, Nitigna Desai, Gregory Binus, and Walter Penk are affiliated with the Edith Nourse Rogers Memorial Veterans Hospital, Bedford, MA.

Winston Turner and David R. Gastfriend are affiliated with the Addiction Research Program, Department of Psychiatry, Massachusetts General Hospital and Harvard

PPC-1 Impact on Bed-Day Utilization over 1-Year

(Sharon et al., JAD 2003)

Naturalistic Mismatching & Utilization (Bedford, MA VA Hospital; N = 95)



ASAM Criteria Validity Study

- **Randomized controlled trial (RCT) of PPC-1**
- **Tested matched v. mismatched assignments**
- **Compared Levels II & III**
- **Longitudinal outcomes:
 drug use, function & cost**
- **Balanced for gender, ethnicity (N=700)**
- **Used computerized algorithm (<1 hr duration)**
- **Based on instruments with known reliability
 to achieve inter-rater reliability of 0.77 (ICC)**

All Patients: No-Show To Treatment: MATCHED vs. MISMATCHED

[N=700]

MATCH STATUS	Show / No-show	
	Show	No-show
Matched (or over-matched) 53.1%	56.5% N=210	43.5% N=162
Mis-Matched to lesser LOC 46.9%	47.6% N=156	52.4% N=172

Mis-matched patients' no-show rate: ~25% worse

$p < .019$

Cocaine: No-Show To Treatment: MATCHED vs. MISMATCHED

[N= 182 High frequency cocaine users]

MATCH STATUS	Show / No-Show	
	Show	No-Show
Matched to adequate or higher LOC	70.8% N=75	29.2% N=31
Mis-matched to lower LOC 24%	38.2% N=29	61.8% N=47

Mis-matched patients' no-show rate: ~100% worse

$p < .001$

Heroin: No-Show To Treatment MATCHED vs. MISMATCHED

[N=279 Heroin Users]

MATCH STATUS	Show	No-Show
Matched to adequate or higher LOC 41%	92.2% N=106	7.8% N=9
Mis-matched to lower LOC 59%	64.6% N=106	35.4% N=58

Mis-matched patients' no-show rate: ~300% worse

$p < .001$

PPC in Patients with + Comorbid Symptoms

(Angarita et al., JAM 2007)

Supported by NIDA grants # R01-DA08781 & K24-DA00427

ORIGINAL ARTICLE

No-Show for Treatment in Substance Abuse Patients with Comorbid Symptomatology: Validity Results from a Controlled Trial of the ASAM Patient Placement Criteria

Gustavo A. Angarita, MD, Sharon Reif, PhD, Sandrine Pirard, MD, Sang Lee, BSc, Estee Sharon, PsyD, and David R. Gastfriend, MD

Purpose: Mismatched placement, according to the American Society of Addiction Medicine's (ASAM) Patient Placement Criteria (PPC), promotes no-shows to treatment; however, little is known about the impact on patients with psychiatrically comorbid substance use disorder.

Methods: In a multisite trial, public-sector treatment-seeking adults (N = 700), following a computer-assisted ASAM PPC-1 structured interview, were blindly scored and randomly assigned to Level-of-Care (LOC)-II (intensive outpatient) or LOC-III (residential) settings. Patients scored as needing LOC-II but assigned to LOC-III

supportive environment as predictors of treatment no-shows (odds ratios = 2.69, $P < 0.05$; 3.27, $P < 0.05$; 5.32, $P < 0.001$; and 3.12, $P < 0.05$, respectively).

Key Words: substance use disorder, no-shows, ASAM levels of care, treatment matching criteria, co-occurring disorders

(J Addict Med 2007;1: 79-87)

Substance abuse is the most common and clinically significant comorbid disorder among adults with severe mental

PPC in Patients with + Comorbid Symptoms

(Angarita et al., JAM 2007)

No-show rates: Comorbids vs. Non-Comorbids, by Matching Status



PPC in Patients with + Comorbid Symptoms

(Angarita et al., JAM 2007)

Conclusions/Discussion

- The ASAM PPC-1, which has shown predictive validity in an overall sample & subpopulations (including heroin using & cocaine using patients), *now appears to show validity for comorbid, too*
- Validity for comorbid includes worse no-show rates not only for undermatching, but for *overmatching*, as well

Three factors contribute to higher no-show rates, when overmatched:

- Female gender
- Anxiety symptoms
- Supportive environment



ASAM PPC-2R

ASAM Patient Placement Criteria
for the Treatment of
Substance-Related Disorders

—*vvv*—
SECOND EDITION—REVISED

American Society of Addiction Medicine, Inc.
Chevy Chase, Maryland

2001

www.asam.org

www.haworthpress.com

ADDICTION TREATMENT MATCHING

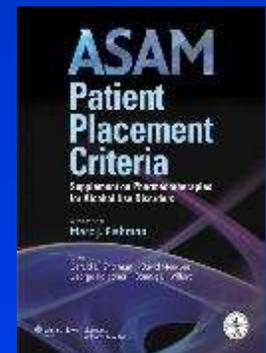
Research Foundations
of the American Society
of Addiction Medicine
(ASAM) Criteria



David R. Gastfriend, MD, Editor

ASAM-PPC 2R Supplement on Pharmacotherapies for Alcohol Dependence

- A text-based addition to the original PPC-2R
- Addresses meds, behavioral therapies, prevention & relapse management
- Evidence-based; best practice consensus, if evidence not yet available
- Uses the ASAM Risk Assessment Matrix to integrate meds & Tx to match interventions, services, & setting to each patient's unique problems & evolving treatment needs
- Many case examples



ASAM-PPC 2R Supplement on Pharmacotherapies for Alcohol Dependence

Development process

- **Review of the literature**
- **Use of unpublished data**
- **Consultation with experts**
- **Rules of evidence**

1. Overview of Treatments for Alcohol Use Disorders

- **Psychosocial Treatments**
- **Self-Help and Mutual-Help Interventions**
- **Pharmacotherapies**
- **Integration of Modalities in Treatment Planning**
- **The ASAM Patient Placement Criteria as a System for Treatment Matching**

2. Management of Intoxication and Withdrawal

3. Prevention and Management of Relapse

ASAM-PPC 2R Supplement on Pharmacotherapies for Alcohol Dependence

4. Pharmacotherapies for Alcohol Use Disorders

- Disulfiram
- Oral Naltrexone (NTX-PO)
- Acamprosate
- Extended-Release Naltrexone (XR-NTX)
- SSRIs
- Valproate, et al. (for subacute disorders)
- Emerging agents (Ondansetron, Lamotragine, etc.)
- Second-line agents

5. Pharmacotherapies and the ASAM Criteria

6. Special Considerations in Patients with Co-Occurring

7. Case Examples

Before you criticize someone,
walk a mile in their shoes.

That way,
when you criticize them,
you're a mile away

and you have their shoes.

Clinical Considerations & Implications of Alcohol Abuse in Patients with Mental Illness

Michael P. Frost M.D., MS

Introduction

- Alcohol use disorders often concurrent with psychiatric disorders
- Alcohol abuse has negative impacts on mental illness
- More impairment of executive functioning, memory deficits, cognitive deficits
- Increased rates of disability

- Study over 4yrs showed noncompliant dually diagnosed patients accounted for 57% hospital readmissions.
- Patients compliant with psych meds but with SUD showed sooner readmission than those without SUD
- Dually diagnosed individuals have less favorable outcomes post-discharge than those without Alcohol dependence

Well known that patients with alcohol use disorders also suffer from:

- Trauma/accidents/falls
- Domestic violence
- Suicide
- Medication noncompliance

Alcohol use can exacerbate psychiatric disorders

- Behavioral disinhibition
- CNS depression
- Impairment cognition

Psychiatric illness is a trigger for alcohol relapse:

- Impaired decision making
- Often socioeconomic stressors
- Attempts to “self-medicate”

Alcohol use directly and indirectly effects organ systems that have negative implications for the assessment and treatment of psychiatric conditions

Alcohol Effects:

- BLOOD
- LIVER
- BRAIN

Effects of Alcohol on BLOOD

Alcohol directly impairs blood production:

- Impairs the GI absorption of fat soluble vitamins, iron, B-complex vitamins vital for haematopoiesis (anaemia)
- Erodes GI mucosa resulting in blood loss (anaemia)

Alcohol causes other blood dyscrasias:

- Thrombocytopenia (low plt)
- Platelet dysfunction
- Neutropenia (low white cells)
- Pancytopenia (bone marrow suppression)

Effects of Psychiatric Medications on Blood

- Many psychiatric medications can potentially cause interference to haematopoetisis or damage to mature blood cells
- This can complicate medication choices in patients with alcohol abuse
- Requires good knowledge of pharmacology

Effects of psychiatric medications include:

- Thrombocytopenia (valproic acid, carbamazepine)
- Neutropenia (olanzapine, risperdone)
- Agranulocytosis (clozapine, chlorpromazine)
- Leukopenia (quetiapine)

- Try to select medications less likely to cause blood dyscrasias
- Monitor patients closely for infections (esp. pneumonia, sepsis) due to immunocompromise
- Monitor for bleeding, bruising
- Correct vitamin deficiencies (folate, iron)

Effect of Alcohol on Liver

- Alcohol is metabolized by the liver
- Alcohol is hepatotoxic resulting in scarring (fibrosis)
- Fibrosis in sufficient amounts leads to cirrhosis
- Fibrotic hepatocytes lose ability to remove toxins and metabolize medications
- Fibrosis decreases blood flow through liver (less filtering of toxins)

- Most psychiatric medications are metabolized through liver
- Same metabolic pathways as alcohol
- Alcohol and meds compete for limited hepatic function
- Slowed metabolism of meds may increase adverse effects or cause supratherapeutic blood levels
- Medications can put more stress on liver, worsening hepatic function further

- Monitor liver enzymes (AST, ALT, GGT) at baseline and after starting medications
- Monitor for signs of medication toxicity
- Try to avoid polypharmacy
- Try to use one medication for several indications (eg: gabapentin for mood and alcoholic neuropathy)

Effects of Alcohol on the Brain

- Alcohol is directly and indirectly neurotoxic
- Alcohol withdrawal results in over-excitation of CNS (glutamate agonism) which damages CNS
- Repeated episodes of withdrawal causes sufficient damage (kindling effect) to result in grand mal seizures

- Many psychiatric medications reduce seizure threshold (eg: phenothiazines, SSRI's)
- When added to effects of alcohol, seizures are common even after period of withdrawal
- Anti-epileptic medications are not effective in preventing primary withdrawal seizures but may be good choices as mood stabilizers in alcohol dep.

Wernicke- Korsakoff's Syndrome

- Pair of separate but related syndromes stemming from failure to absorb thiamine (B1) due to effects of alcohol on GI tract
- Causes damage to limbic system (thalamus/hypothalamus)
- Effects impulse control, judgment

Symptoms of Wernicke's Syndrome:

- Confusion
- Ataxia (lack of muscle coordination)
- Tremor
- Vision changes (double vision)
- Appears similar to psychiatric illness

Symptoms of Korsakoff's Psychosis:

- Inability to form new memory
- Severe memory loss
- Confabulation
- Hallucinations

- Wernicke-Korsakoff may be confused with primary psychiatric disease
- May exacerbate underlying psychiatric illness
- Will not respond to antipsychotic medications
- May worsen initially with IV glucose or sudden improvement in diet
- Treatment is thiamine replacement

Alcoholic Encephalopathy

- Alcohol damages astrocytes (supporting cells) that help to eliminate neurotoxins
- Leads to potentially fatal brain disorder
- Build up of neurotoxins in form of ammonia and manganese

Symptoms of Encephalopathy include:

- Changes in mood/personality
- Severe cognitive impairment
- Anxiety/depression
- Lack of motor coordination
- Sleep disturbance
- Asterixis (flapping hand tremor)
- Coma

- Frequently misdiagnosed as psychiatric disorder
- Worsens underlying mental illness
- Does not respond to psych meds

- Ammonia levels may be elevated
- Level of ammonia level does not correlate to severity of encephalopathy
- Treatment includes agents that bind ammonia (lactulose, neomycin, rifaximin), liver assist devices, or liver transplantation

Diagnosing Hepatic Complications

Hepatic workup can include:

- Hepatitis panel
- Pre-albumin
- Thiamine level
- Folate level
- B-12 level

- AST/ALT/GGT
- CDT (carbon deficient transferase)
- Thyroid functions
- Ammonia level (if indicated)

Alcohol Withdrawal

- Alcohol withdrawal can appear similar to mental illness
- Can worsen underlying psychiatric condition
- Presents with anxiety, depression, irritability, confusion, lethargy, disorientation, psychomotor agitation, sleep difficulty
- Adequate treatment with benzodiazepines for the acute withdrawal will also help psych related anxiety and agitation but should be short lived

Conclusion

- Alcohol use disorders may present similarly to psychiatric conditions and may worsen underlying psychiatric disorders.
- Thorough assessment is needed to make correct diagnosis
- Treatment should address potential life threatening complications
- Treatment should take into account complex interactions of the two conditions